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Notice of Allowability	Application No.	Applicant(s)	
	09/991,285	LIU ET AL.	
	Examiner	Art Unit	
	ALEXANDER BOAKYE	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 01/23/2006.
2. ☒ The allowed claim(s) is/are 1-17, 18, 19, 21, 22, 23, 37-43, 45, 47, 48-54, 64-69, 70-75, 76-80, 81-85, 86-90, 94, 95; renumbered as 1-17, 18, 19, 20, 21, 22, 23-29, 30, 31, 32-38, 39-44, 45-50, 51-55, 56-60, 61-65, 66 and 67 respectively
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Kalson on 01/30/06.

In claim 1, lines 12-13, after "or", "mote", has been replaced with - - more - -;

Drawings

2. Drawings filed on 11/13/2001 have been approved by the examiner.

REASONS FOR ALLOWANCE

3. The following is an examiner's statement of reasons for allowance: Claims 1-19, 21-23, 37-43, 45, 47, 48-55, 64-69, 70-75, 76-80, 81-85, 86-90, 94 and 95 are considered allowable since when reading the claims in light of the specification, none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims. As to claims 1-17, the prior art of record

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does not teach a dialing logic circuit for performing call setup and tear down operations based on the data routing configuration information; wherein the data path connection is formed by the data route, and can include any one or more of the following data paths: (i) a switched circuit network, including one or more PSTN circuits; and/or (ii) a wide area network (WAN); and/or (iii) one or more digital cross-connects.

As to claims 18, 19, 21-23, the prior art of record does not teach an access select circuit for setting up a first path and /or a second path as the data path connection based on connection configuration information received from the originating site; and wherein the first path includes a public switched telephone network (PSTN) and /or digital cross-connects (DCS) and the second path includes a wide area network (WAN); a pulse code modulation circuit for converting voice signals from the origination site into pulse code modulated voice data suitable for transmission over PSTN switch; and a data access router coupled to and controlled by the access select circuit for routing communications between the originating site and the destination site over the first path and /or the second path; and the data access router being further coupled to PSTN interface, a DCS interface and a WAN interface for transmitting the communications over the first and / or second paths.

As to claims 37-43, 45 and 47, the prior art of record does not teach (c) an access circuit for setting up the configurable data route to the destination site; wherein the data route can be configured to include either or both of a first data path and second data path; and further wherein the first and second data paths have associated first and second data transmission delay characteristics and first and second data transfer rate

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characteristics. As to claims 48-55, the prior art of record does not teach selecting configuring a data route for data transfer to a destination site using first and / or second data paths by determining which of first and second data transmission characteristics best matches the request data transmission characteristics; and transferring data between the originating site and the destination site by using a virtual packet switched circuit connection and / or a virtual permanent circuit connection for the first and / or second data paths respectively.

As to claims 64-69, the prior art of record does not teach a dialing logic circuit for performing call set up and tear down functions for any data paths set up for data communications through the PSTN and / or the DCS. As to claims 70-75, the prior art of record does not teach routing at least selected time-sensitive portions of the xDSL based signal over the dedicated circuit switched connection between the first CPE and a second CPE using the access system, the selected time-sensitive portions including data for a transfer delay sensitive service; adjusting routing of the xDSL based signal through the WAN and / or the dedicated circuit switched connection in response to changes in transfer for delay requirements of the xDSL based signal and / or a request from the first CPE site. As to claims 76-80, the prior art of record does not teach configuring the access circuit so that at least some portions of the xDSL compatible data transmission from the first origination site can be routed to a plurality of second destination sites using a plurality of separate corresponding PST switch connection; wherein a plurality of separate circuit switched connection are set up in the PSTN for supporting circuit switched data transmissions between the first origination site and the

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plurality of second destination sites, the circuit switched data transmissions being transported between the first origination site and the access circuit by the xDSL compatible data transmission.

As to claims 81-85, the prior art of record does not teach configuring a data path between the first DSL access circuit and the second DSL access circuit through a dedicated permanent switch connection, including a public switched telephone network (PSTN), to carry data from the first DSL CPE communications device to the second DSL CPE communications device; wherein an end-to-end dedicated permanent switch connection is established between the first DSL CPE communications device and the second DSL CPE communication device. As to claims 86-90, the prior art of record does not teach setting up a packet switched connection between the first modem and the second modem using the first access circuit and the second access circuit; wherein a virtual circuit is established over the packet switched network between the first access circuit and the second access circuit in response to the first modem calling the second modem.

As to claim 94, the prior art of record does not teach wherein the telephone call based request further specifies a cost factor to be satisfied when establishing the dedicated switched circuit path and/ or the packet switched path. As to claim 95, the prior art of record does not teach (d) performing pulse code modulation on any time sensitive data so that they are suitable for routing by either a public switched telephone network (PSTN) switch and/or a digital cross switch (DCS).


Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Boakye whose telephone number is (571) 272-3183. The examiner can normally be reached on M-F from 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham, can be reached on (571) 272-3179. The Central Fax number is (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Electronic Business Center numbers 866-217-9197.

Alexander Boakye

Patent Examiner
AB
01/30/06


CHI PHAM
SUPERVISORY PATENT EXAMINER
ELECTRONIC BUSINESS CENTER 2/2/06